

WHAT IS CLAIMED IS:

1. A computer system, comprising:  
a host operable to interface with a network;  
a primary storage device operable to interface with  
5 the network, the primary storage device including first  
and second logical units, the first logical unit assigned  
to store data generated by the host; and  
an agent module operable to communicate with the  
host and the primary storage device, the agent module  
10 further operable to:  
detect a failure at the first logical unit;  
locate backup data from the first logical unit  
on a backup storage device;  
transfer the backup data from the backup  
15 storage device to the second logical unit; and  
map the second logical unit to an address  
associated with the host in response to detecting the  
failure at the first logical unit.

20 2. The computer system of Claim 1, wherein the  
primary storage device comprises a redundant array of  
independent disks (RAID) device.

25 3. The computer system of Claim 1, wherein the  
detecting comprises receiving notification from the  
primary storage device of the failure at the first  
logical unit.

30 4. The computer system of Claim 1, wherein the  
address comprises a world wide name (WWN).

5. The computer system of Claim 1, wherein the backup storage device comprises a tape drive.

5 6. The computer system of Claim 1, further comprising the agent module operable to configure the second logical unit in response to detecting the failure.

10 7. The computer system of Claim 1, further comprising the agent module operable to instruct the host to reboot after the second logical unit has been mapped to the host.

15 8. The computer system of Claim 1, wherein the network comprises a fibre channel network.

9. A computer system for providing automatic data restoration after a storage device failure, comprising:

a plurality of servers operable to interface with a network, the servers including an application server and  
5 a backup server;

a plurality of storage devices operable to store data associated with the servers, the storage devices including an application storage device including first  
10 and second logical units and a backup storage device interfaced with the backup server, the first logical unit assigned to the application server by using a first logical unit number (LUN) address; and

an agent module associated with the servers and the storage devices, the agent module operable to:

15 detect a failure at the first logical unit;  
assign the second logical unit to the backup server in response to detecting the failure;

instruct the backup server to transfer backup data associated with the first logical unit from the  
20 backup storage device to the second logical unit;

map the second logical unit to the application server when the backup data transfer from the backup storage device is complete by using a second LUN address associated with the second logical unit and a server  
25 address associated with the application server; and

instruct the application server to reboot after the second logical unit has been mapped to the application server.

10. The computer system of Claim 9, wherein the application storage device comprises a RAID device.

11. The computer system of Claim 9, wherein the  
5 backup storage device comprises a tape drive.

12. The computer system of Claim 9, further comprising the agent module operable to configure the second logical unit in response to detecting the failure  
10 at the first logical unit.

13. The computer system of Claim 9, wherein the network comprises a fibre channel network.

14. A method for providing automatic data restoration after a storage device failure, comprising:  
detecting a failure at a first logical unit operable to store data associated with a host, the host operable to couple to a network;

configuring a second logical unit in response to detecting the failure at the first logical unit, the first and second logical units located on a first storage device operable to couple to the network;

transferring backup data associated with the first logical unit from a second storage device to the second logical unit; and

mapping the second logical unit to an address associated with the host when the backup data transfer from the second storage device is complete.

15. The method of Claim 14, further comprising:  
communicating the data between the host and the first logical unit via the network; and

communicating the backup data between the first logical unit and the second storage device via the network.

16. The method of Claim 14, further comprising  
locating the backup data associated with the first logical unit on the second storage device, the backup data copied from the first logical unit to the second storage device prior to the failure.

17. The method of Claim 14, wherein:  
the first device comprises a RAID device; and  
configuring the second logical unit in response to  
detecting the failure at the first logical unit comprises  
5 instructing the RAID device to create the second logical  
unit from one or more spare storage media.

18. The method of Claim 14, wherein the second  
storage device comprises a tape drive.

19. The method of Claim 14, further comprising  
instructing the host to reboot after mapping the second  
logical unit to the host.

20. The method of Claim 14, wherein the  
transferring comprises instructing a backup server  
interfaced with the second storage device to copy the  
data from the second storage device to the second logical  
unit.

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21. The method of Claim 14, wherein the detecting  
comprises receiving an SNMP message.

22. The method of Claim 14, further comprising  
25 communicating the data via a fibre channel network.